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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chang-Hyung Cho

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EXAMINER

ZHAO, DAQUAN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/024,716	<b>Applicant(s)</b> CHO, CHANG-HYUNG	
	<b>Examiner</b> DAQUAN ZHAO	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 50-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/13/2010 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 50-56 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claim 53 is rejected under 35 U.S.C. 102(a) as being anticipated Hiroahi et al anticipated by Hiroahi et al (EP 1063797, see the previous office action for this reference).

5. For claim 53, Hiroahi et al teach a receiver comprising: a receiving unit configured to receive a digital television signal (e.g. paragraphs 3, 97-99, figure 4, reception unit 401 receives transport streams transmitted from satellites, demultiplexing

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unit 402 demultiplexes the program specification information and program information are stored in the service information storage unit 405); and a parser configured to parse information (e.g. paragraphs 3, 97-99, figure 4, reception unit 401 receives transport streams transmitted from satellites, demultiplexing unit 402 demultiplexes the program specification information and program information are stored in the service information storage unit 405);which is provided by a Program and System Information Protocol(PSIP) included in the received data (e.g. paragraph 51-52,76, 92 EIT table is program information, wherein the EIT belong to the PSIP, The examiner introduces references Kou, US 7,406,706, column 1, lines 34-63 to prove that the EIT table belong to the PSIP) .

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroahi et al (EP 1063797, see the previous office action for this reference) and further in view of Grabb et al (US 6,538,704).

For claim 50, Hiroahi et al a digital television receiver comprising:

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receive a digital television signal (e.g. paragraph 3, 97, reception unit 401 of the digital broadcast reception apparatus of figure 4); and

a parser configured to parse system information included in the received signal (e.g. paragraph 99, demultiplexing unit 402 demultiplexes the program specifications information and program information, and stored them in the service information storage unit 405), wherein the system information includes feature information to indicate a category of the digital television signal (e.g. paragraph 47, 51, 52-53, 77, 92-94 and figures 2-3,5, the EIT includes genre (code) information, wherein the genre includes categories shown in figure 3, such as Foreign Movie/TVV Drama, includes Action, Western, Social Drama... etc). However, Hiroahi et al do not disclose a digital Advanced Television Standard Committee (ATSC) tuner. Grabb et al teach a digital Advanced Television Standard Committee (ATSC) tuner (e.g. abstract, column 2, lines 37-47, column 1, lines 30-38). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the ATSC tuner of Grabb et al into the receiving unit of Hiroahi et al to speed up the convergence and reduce the time needed to acquire a new channel when changing from one channel to another (e.g. column 2, lines 44-47 of Grabb et al).

For claim 51, Hiroahi et al teach a receiver comprising: receive a digital television signal and auxiliary information (e.g. paragraphs 3, 97 and 99, reception unit 401 of the digital broadcast reception apparatus of figure 4); and a parser configured to parse the auxiliary information (e.g. paragraph 99, demultiplexing unit 402 demultiplexes the program specifications information and program information, and stored them in the

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service information storage unit 405), wherein the auxiliary information includes feature information to indicate a category of the digital television signal (e.g. paragraph 47, 51, 52-53, 77, 92-94 and figures 2-3, the EIT includes genre (code) information, wherein the genre includes categories shown in figure 3, such as Foreign Movie/TVV Drama, includes Action, Western, Social Drama... etc, ). However, Hiroahi et al do not disclose a digital Advanced Television Standard Committee (ATSC) tuner. Grabb et al teach a digital Advanced Television Standard Committee (ATSC) tuner (e.g. abstract, column 2, lines 37-47, column 1, lines 30-38). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the ATSC tuner of Grabb et al into the receiving unit of Hiroahi et al to speed up the convergence and reduce the time needed to acquire a new channel when changing from one channel to another (e.g. column 2, lines 44-47 of Grabb et al).

For claim 52, Hiroahi et al teach a receiver comprising: receive a digital television signal (e.g. paragraph 3, ); and a parser configured to parse category information from the received data (e.g. paragraph 99, demultiplexer), wherein the category information includes a program title (e.g. 32, 125, figures 8-9, program name 903). However, Hiroahi et al do not disclose a digital tuner. Grabb et al teach a digital tuner (e.g. abstract, column 2, lines 37-47, column 1, lines 30-38). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the digital tuner of Grabb et al into the receiving unit of Hiroahi et al to speed up the convergence and reduce the time needed to acquire a new channel when changing from one channel to another (e.g. column 2, lines 44-47 of Grabb et al).

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8. Claims 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroahi et al (EP 1063797, see the previous office action for this reference) and further in view of Rainsford (US 7,158,676).

For claim 54, Hiroahi et al teach a method comprising: receiving a digital television signal and auxiliary information (e.g. paragraphs 97-99); determining category information based on the received auxiliary information (e.g. column 10, lines 5-17, video program are categorized into categories such as movies, sports, entertainment...etc under "retrieval by title"); and searching the digital television signal based on the determined category information (e.g. paragraph 125, and figures 8-9).

Hiroahi et al do not further disclose auxiliary information which is not included in the digital television signal; Rainsford teach auxiliary information which is not included in the digital television signal (e.g. column 12, lines 8-19, PSI are sent separately from the transport stream). It would have been obvious to one ordinary skill in the art at the time the invention was made to distribute data separately to the receiver for the receiver to easily identify the channel carrying the video program.

For claim 55, Hiroahi et al teach category information includes a program title (e.g. 32, 125, figures 8-9, program name 903).

9. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroahi et al (EP 1063797, see the previous office action for this reference) and Rainsford (US 7,158,676), as applied to claims 54-55 above, and further in view of Chen (US 2002/0136538).

see the teaching of Hiroahi et al and Rainsford above.

For claim 56, Hiroahi et al and Rainsford do not disclose a compression ratio is determined based on the category information, and the received digital television signal is stored in accordance with the determined compression ratio. Chen teach a compression ratio is determined based on the category information, and the received digital television signal is stored in accordance with the determined compression ratio (e.g. figure 2 and paragraph 15). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Chen into the teaching of Hiroahi et al and Rainsford to compresses the A/V signal at a compression ratio according to the category item selected for the A/V signal to efficiently utilize the limited storage space (Chen, paragraph 7).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daquan Zhao/  
Examiner, Art Unit 2621

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621